



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/582,870	07/06/2000	OSAMU SANO	1560-345P	4434

2292 7590 07/29/2002

BIRCH STEWART KOLASCH & BIRCH
PO BOX 747
FALLS CHURCH, VA 22040-0747

EXAMINER

DEPUMPO, DANIEL G

ART UNIT	PAPER NUMBER
----------	--------------

3611

DATE MAILED: 07/29/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/582,870

Applicant(s)
Sano

Examiner
Daniel G. DePumpo

Art Unit
3611



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Jun 19, 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 29-39, 41-43, 56-58, and 74-84 is/are pending in the application.
- 4a) Of the above, claim(s) 31-33, 41-43, and 56-58 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 29, 30, 34-39, and 74-84 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 6) ☐ Other: _____

Art Unit: 3611

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 30 and 74 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 30 and 74 recite that "the pairs of chamfers are on all of the valve spool lands".

This is indefinite because it is inconsistent with claims 29 and 34 (i.e. the independent claims) which specify that each valve spool land "has only one chamfer" rather than a pair of chamfers.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 29, 30 and 34-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yuuichi (JP 8104246) in view of Kobayashi '107.

In fig. 8, Yuuichi discloses a steering apparatus and control valve having the structure substantially as claimed. The device includes a valve body 33 and a valve spool 31. The valve spool 31 includes chamfers at 54 on the sections of the lands that are adjacent the pump supply 13/42. Each valve spool land has only one chamfer 54. Yuuichi also discloses chamfers on the valve body (i.e. on lands 38₂ and 38₈) and therefore, the chamfers are not on "only one of said valve body or said valve spool" as claimed. However, Kobayashi discloses a steering valve

Art Unit: 3611

(figs. 4A and 4B) having chamfers 6 only on sections of the spool posts that are adjacent the pump supply. (i.e. Kobayashi discloses that it is not necessary to have chamfers on the valve body.) It would have been obvious to modify Yuuichi, by eliminating the chamfers on the valve body for ease of manufacture since Kobayashi discloses that the chamfers are only necessary on the sections of the spool posts that are adjacent the pump supply to reduce noise (col. 4, line 6).

5. Claims 39 and 74-84 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Yuuichi and Kobayashi as applied to claims 29, 30 and 34-38 above, and further in view of Applicant's Admitted Prior Art (APA).

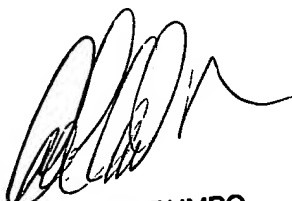
As set forth above, the combination teaches substantially all that is claimed. Presumably, the pumps of Yuuichi and Kobayashi are driven by an electric motor (claim 39), but these references do not expressly disclose this. However, at page 1 of applicant's disclosure it is stated that the use of such an electric motor is known. It would have been obvious to use an electric motor to drive the pump since this is disclosed as being conventional and since electric motors are readily available and are commonly used for such purposes because of their efficiency.

The combination also does not teach that the flow rate is zero when steering is not carried out, and becomes high when steering is carried out. However, as shown in applicant's prior art fig. 4, the flow rate is low or zero when steering is not carried out, and becomes high when steering is carried out. Therefore, it would have been obvious to modify the combination by providing such flow rate for enhanced efficiency.

Art Unit: 3611

6. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel G. DePumpo whose telephone number is (703) 308-1113.



DANIEL G. DePUMPO
PRIMARY EXAMINER

dgd

July 24, 2002